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Jurgen Specht

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EXAMINER

ZHENG, LOIS L

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,006	Applicant(s) SPECHT ET AL.	
	Examiner LOIS ZHENG	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 41 and 60 are amended in view of applicant's amendment filed 15 December 2008. Therefore, claims 41-61 are currently under examination.

Status of Previous Objections

2. The objection to claim 60 is withdrawn in view of applicant's claim amendment filed 15 December 2008.

Status of Previous Rejections

3. The rejection of claims 20-38 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14-17 and 22 of copending Application No. 11/483,111(App'111) is withdrawn because App'111 is now abandoned.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 41-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehmecker et al. US 6,168,674 B1(Gehmecker).

Gehmecker teaches a process for phosphating a metal surface that is at least partially aluminized(col. 2 lines19-24) with a aqueous, acidic coating solution comprising 0.4-2.0g/l of Zn, 7-25g/l of P₂O₅, 0.01-0.1g/l of H₂O₂, 0.3-2.5g/l of formate, up to 30g/l of nitrate, up to 3g/l of Mn, Mg, Ni, up to 0.03g/l of Cu, up to 1.5g/l of simple fluoride, up to

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3g/l of fluoroborate, up to 3g/l of fluorosilicate(claims 1-14, col. 1 lines 59-67, col. 2 lines 1-11 & 60-63, col. 3 lines 5-36), The coating solution of Gehmecker has a pH of 3.6-5.0 (claim 8) and a free acid value ranges from 0.5 to 2.5(claim 1). The Examples of Gehmecker further disclose coating solutions having free acids of 0.7 and 0.6 points, total acids of 23 and 25 points, and coating weights of 2.2g/m^2 and 2.5g/m^2 (Tables in col. 5). Gehmecker further teaches that the coating temperature ranges from 30-65°C(col. 3 lines 37-38).

Regarding claims 41-58 and 60-61, Gehmecker further teaches that formate can be added as alkali formate(col. 3 lines 50-52), which implies the presence of Na or K concentrations. In addition, Solutions A and C as shown in Examples 1-2 of Gehmecker further teaches a formate ions concentration of 1g/l, which implies an alkali ion concentration that is 0.338g/l if sodium is used or 0.465g/l if potassium is used. Therefore, the coating components in the coating solution of Gehmecker have concentrations that either read on the claimed concentrations or significantly overlap the claimed concentrations. The pH and the free acid ranges in the coating solution of Gehmecker also overlap the claimed pH and the claimed free acid ranges. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed coating component concentration ranges, pH and free acid ranges from the disclosed ranges of Gehmecker would have been obvious to one skilled in the art since Gehmecker teaches the same utilities in its' disclosed coating component concentration ranges, pH and free acid ranges.

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With respect to the precipitation from an Al-F complex as amended in claims 41 and 60, Gehmecker does not teach any precipitation products from an Al-F complex. In addition, Gehmecker's coating solution is substantially the same as the claimed coating solution. Therefore, the examiner concludes that the precipitation products from an Al-F complex in the coating produced by the process of Gehmecker would have been scarce, if any, as claimed.

Regarding claim 59, one of ordinary skill in the art would have found it obvious to have applied the process of Gehmecker to any aluminum metal surfaces of any metal body, including the claimed automobile, aircraft, sheet, wire mesh and small plant, with expected success.

6. Claims 41-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubach et al. US 6,497,771 B1(Schubach).

Schubach teaches a process for phosphating a metal surface, such as aluminum and aluminum alloys with a aqueous, acidic coating solution comprising 0.3-5g/l of Zn, wherein the ratio of Zn/P₂O₅ is 1:5-1:18, 0.1-1.5g/l of nitroguanidine, 0.1-0.4g/l of hydroxylamine, 0.5-20g/l of nitrate, 0.01-3g/l of Mn, 0.01-3g/l of Ni, 1-100mg/l of Cu, 0.01-3g/l of simple fluoride, 0.05-2.5g/l of complex fluoride such as fluoroborate and/or fluorosilicate(claims 1-12, abstract, col. 2 line 58 – col. 3 line 23, col. 3 lines 45-57), The coating solution of Schubach has a pH of 2-4 (col. 4 line 40). The Examples of Schubach further disclose free acids ranging from 2.2-2.4 points, total acids ranging from 21-25.7 points, and coating weight ranges from 2.0-8.0g/m²(Table in col. 6). Schubach further teaches that the coating temperature ranges from 15-70°C(claim 9).

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Regarding claims 41-58 and 60-61, Schubach further teaches that the nitrate can be added as alkali nitrate(col. 3 lines 10-11), which implies the presence of Na or K concentrations that at least overlap the claimed Na or K concentration ranges. Therefore, the coating components in the coating solution of Schubach have concentrations that either read on the claimed concentrations or significantly overlap the claimed concentrations. The coating temperature range as taught by Schubach significantly overlaps the claimed coating temperature range. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed coating component concentration ranges and coating weight ranges from the disclosed ranges of Schubach would have been obvious to one skilled in the art since Schubach teaches the same utilities in its' disclosed coating component concentration and coating weight ranges.

With respect to the precipitation from an Al-F complex as amended in claims 41 and 60, Shubach does not teach any precipitation products from an Al-F complex. In addition, Schubach's coating solution is substantially similar to the claimed coating solution. Therefore, the examiner concludes that the precipitation products from an Al-F complex in the coating produced by the process of Schubach would have been scarce, if any, as claimed.

Regarding claim 59, one of ordinary skill in the art would have found it obvious to have applied the process of Schubach to any aluminum metal surfaces of any metal body, including the claimed automobile, aircraft, sheet, wire mesh and small plant, with expected success.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 20-37 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15, 17-22 and 34 of copending Application No. 10/467,850(App’850). Although the conflicting claims are not identical, they are not patentably distinct from each other because App’850 teaches a metal phosphating process utilizing a zinc phosphate solution that is substantially the same as the claimed zinc phosphating solution with overlapping component concentration ranges.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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9. Claims 20-37 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 27-42 and 44 of copending Application No. 10/555,929(App'929). Although the conflicting claims are not identical, they are not patentably distinct from each other because App'929 teaches a metal phosphating process utilizing a zinc phosphate solution that is substantially the same as the claimed zinc phosphating solution with overlapping component concentration ranges.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

10. Applicant's arguments filed 15 December 2008 have been fully considered but they are not persuasive.

In the remarks, applicant argues that Gehmecker teaches a free acid that produces a less acidic solution than the claimed solution.

The examiner does not find applicant's argument persuasive because Gehmecker teaches a free acid of 0.5 to 2.5 points(claim 1), which overlaps the claimed free acid range of 1.6-2.8 points. Example 2 of Gehmecker further discloses a free acid value of 1.6 for Solution C, which reads on the claimed free acid range of 1.6-2.8 points.

Applicant further argues that the instantly claimed Na+K range does not cause precipitation of cryolite, thereby, prevents the deterioration of corrosion resistance.

As discussed in paragraph 5 above, Solutions A and C as shown in Examples 1-2 of Gehmecker further teaches a formate concentration of 1g/l, which implies an alkali

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ion concentration that is 0.338g/l if sodium is used or 0.465g/l if potassium is used. Due to such a low amount of alkali metals in the coating solution of Gehmecker, the examiner concludes that there is no precipitation of cryolite in the coating solution of Gehmecker.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LOIS ZHENG whose telephone number is (571)272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

LLZ